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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,997

03/09/2007

Henning Buchold

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535 7590 03/31/2009

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EXAMINER

GODENSCHWAGER, PETER F

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,997	Applicant(s) BUCHOLD ET AL.	
	Examiner PETER F. GODENSCHWAGER	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Applicant's reply filed December 12, 2008 has been fully considered. Claims 1-12 are canceled, claims 13-16 are new, and claims 13-16 are pending.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat. No. 4,443,622) in view of Nordstrom (US Pat. No. 3,424,724) and when taken with Harder et al. (US Pat. No. 4,436,668).

Smith teaches a process of reacting polymeric multifunctional alcohols (diethylene glycol) with urea under a vacuum at 150 °C or 160 °C (Examples II, III, and IV) to up to 200 °C (2:25-30). The Examiner recognizes that the claimed products are not positively taught by the reference, namely the formation of carbamate and carbonate reaction products. However, the reference teaches all of the claimed ingredients, process steps and process conditions. Therefore, the claimed products would inherently be achieved by carrying out the disclosed process, as evidenced by Harder et al. which shows that carbamic acid esters (which could be carbamates formed from a initial reaction of urea and an alcohol) further react with another equivalent of alcohol to form carbonates especially at temperatures above 140 °C (1:45-65).

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Smith does not teach the polymeric multifunctional alcohol as a polyester polyol. However, Nordstrom teaches reacting polyester polyols with urea to form carbamates (1:25-30, 35-45, and 2:40-50). Smith and Nordstrom are analogous art because they are concerned with solving a problem of similar technical difficulty, namely reacting polymeric multifunctional alcohols with urea to form carbamates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the polyester polyols of Nordstrom with the teachings of Smith and would have been motivated to do so because Nordstrom teaches that the resulting polycarbamates are useful for forming superior resin vehicles for coating compositions (1:35-45). Furthermore, Nordstrom teaches that the reaction for forming the carbamates can be accomplished by various methods, leading one to explore methods in the art such as the teaching of Smith with a reasonable expectation of success.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pat. No. 4,443,622) in view of Nordstrom (US Pat. No. 3,424,724) and when taken with Harder et al. (US Pat. No. 4,436,668).

Smith teaches a process of reacting polymeric multifunctional alcohols (diethylene glycol) with urea under a vacuum (removing liberated ammonia) at 150 °C or 160 °C (Examples II, III, and IV) to up to 200 °C (2:25-30) in the presence of a catalyst such as magnesium oxide (an oxide of a group IIb element) (2:35-41). The Examiner recognizes that all of the claimed composition properties are not positively taught by the reference, namely the formation of carbamate and carbonate reaction products. However, the reference teaches all of the claimed ingredients, process steps and process conditions. Therefore, the claimed composition properties

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would inherently be achieved by carrying out the disclosed process, as evidenced by Harder et al. which shows that carbamic acid esters (which could be carbamates formed from a initial reaction of urea and an alcohol) further react with another equivalent of alcohol to form carbonates (1:45-65).

Smith does not teach the polymeric multifunctional alcohol as a polyester polyol. However, Nordstrom teaches reacting polyester polyols with urea to form carbamates (1:25-30, 35-45, and 2:40-50). Smith and Nordstrom are analogous art because they are concerned with solving a problem of similar technical difficulty, namely reacting polymeric multifunctional alcohols with urea to form carbamates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the polyester polyols of Nordstrom with the teachings of Smith and would have been motivated to do so because Nordstrom teaches that the resulting polycarbamates are useful for forming superior resin vehicles for coating compositions (1:35-45). Furthermore, Nordstrom teaches that the reaction for forming the carbamates can be accomplished by various methods, leading one to explore methods in the art such as the teaching of Smith with a reasonable expectation of success.

Response to Arguments

Applicant's arguments with respect to claims 13-16 have been considered but are moot in view of the new ground(s) of rejection. See rejections above, specifically with regards to Nordstrom (US Pat. No. 3,424,724) and the teaching of polyester polyols.

Terminal Disclaimer

The terminal disclaimers filed on December 12, 2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patents granted in Application Nos. 10/571,476 or 10/571,479 have been reviewed and are accepted. The terminal disclaimers have been recorded. The provisional obviousness-type double patenting rejections over copending Application Nos. 10/571,476 and 10/571,479 are withdrawn in light of the terminal disclaimers filed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER F. GODENSCHWAGER whose telephone number is (571)270-3302. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. F. G./
Examiner, Art Unit 1796
March 23, 2009

/Harold Y Pyon/
Supervisory Patent Examiner, Art Unit
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